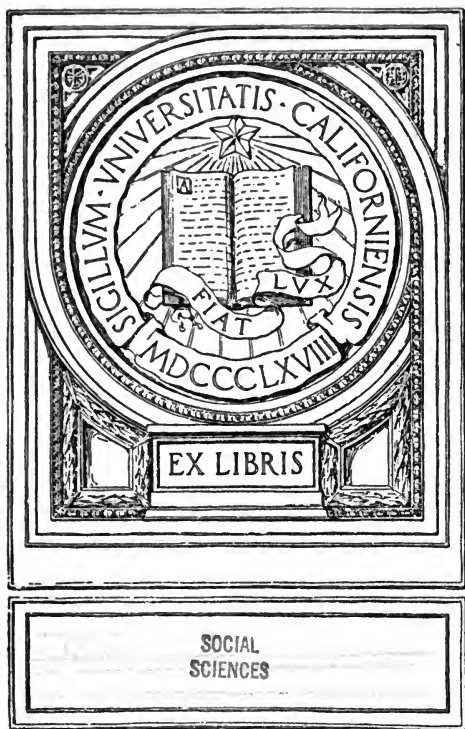


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OPERATING EXPENSES IN RETAIL HARDWARE STORES IN 1919

THE second annual summary of the cost of doing business in retail hardware stores, as shown by the investigations of the Bureau of Business Research, is presented in this bulletin. In preparation of this bulletin reports from one hundred fifty-five retail hardware stores for the year 1919 were used. These stores were located in thirty-five states. Thus, they were typical of conditions over a wide area. Reports had been received from fifty-five of these stores in previous years, and reports were received from forty-five of the stores for both 1918 and 1919.

The number of merchants who continue to send in their reports each year and the number of new coöperators indicate a gradual increase of interest in the comparisons of the cost of doing business. As in the other investigations that the Bureau has been carrying on, there is a marked tendency toward improvement in the accuracy of the reports that are received. The merchants who reported for both 1918 and 1919 furnished more complete reports for the second year.

The opportunities for further improvement in accounting methods in the hardware trade generally seem to be fully as great as in any of the other retail trades that the Bureau has studied. Apparently, the lack of accurate figures on their income and outgo is one of the chief reasons why numerous hardware stores have not furnished reports to the Bureau. Judging from its previous experience, the Bureau expects that its summaries will become more valuable and more comprehensive with the progressive improvement in accounting methods.

VOLUME OF SALES

The retail hardware stores from which reports were received for 1919 showed a range in volume of net sales from \$8,000 to \$252,000 a year. The following table, in which the stores are classified according to volume of net sales, indicates the number of stores in each volume-of-sales group.

Net Sales, 1919	Number of Stores
Less than \$10,000	1
\$10,000-\$19,000	16
\$20,000-\$29,000	36
\$30,000-\$39,000	29
\$40,000-\$49,000	15
\$50,000-\$59,000	9
\$60,000-\$69,000	14
\$70,000-\$79,000	6
\$80,000-\$89,000	5
\$90,000-\$99,000	4
\$100,000 and over	20

Each of the forty-five stores that furnished reports for both 1918 and 1919 showed an increase in net sales in the latter year. In four stores the increase was less than 10 % of the volume in 1918; in eight stores the increase was between 10.0 % and 19.9 %; in eleven stores between 20.0 % and 29.9 %; in eight stores between 30.0 % and 39.9 %; in seven stores between 40.0 % and 49.9 %; in seven stores over 50 %. The largest increase was 72.6 %. Owing to the lack of a reliable index number for the increase in prices of hardware, it is not possible to ascertain to what extent this increase in the volume of net sales was due to rising prices, and to what extent it was due to the sale of a larger number of units of merchandise.

In order to obtain approximate information on the character of the business, hardware merchants were requested to give their estimated sales in each of several lines. About fifty merchants answered this inquiry.

In thirty-six stores the sales of builders' hardware ranged from 0.1 % to 46 % of the total sales. In two-thirds of these stores the sales of builders' hardware were not over 10 % of the total sales, and the typical figure was 6 %.

The sales of wire and heavy hardware ranged from 1 % to 60 % of the total sales in these stores. Only five stores, however, reported estimated sales of wire and heavy hardware amounting to more than 20 % of the total sales; the average was about 12 %.

For cutlery the largest proportion was 13 % of the total sales. In over one-half the stores the sales of cutlery were less than 3 % of the total sales.

The sales of sporting goods averaged about 3 % of the total sales.

The sales of carpenters' tools also averaged about 3 % of the total sales. In only two stores were the estimated sales of carpenters' tools more than 8 %, the highest being 17 %. The sales of other tools averaged about 2 % of the total sales in these stores.

One store reported that 57 % of its business was in the sale of garden implements. This, however, was exceptional, for only eight stores reported estimated sales of garden implements amounting to more than 4 % of their total volume of business, and the average was about 2 %.

The sales of paint and oil varied from less than 1 % to 63 % of the total sales. In three-fourths of the stores the sales of paint and oil were less than 10 %; the average was approximately 7 %.

Nearly all the retailers who answered this question regarding the sales in various lines reported sales of stoves. The amount of these sales varied from 1 % to 57 % of the total sales. In two-thirds of the stores the sales of stoves were less than 10 % of the total; the average was 6 %.

The sales of household supplies showed wide variation; the average was about 10 %.

This inquiry brought out the fact that these retail hardware merchants were selling many other kinds of merchandise than those that ordinarily are understood as comprising hardware. These other lines include seeds, electrical goods, implements, harnesses, furniture, lumber, automobiles, and fertilizers. In numerous stores the sales of these other lines were substantially greater than the sales of the kinds of hardware previously enumerated.

OPERATING EXPENSES

The reports on operating expenses have been adjusted in all cases to the standard accounting system. Only those reports that were fairly complete were included in the tabulations. While the figures used in this summary are believed to be approximately accurate, nevertheless, they are to some extent preliminary in character and are subject to modification in the future not only because of changes in business conditions but also because of the improvement that is manifestly taking place in the completeness of the reports submitted to the Bureau by hardware retailers.

In collecting the data for 1919, buying expense was combined with management expense. Where possible it seems advisable that buying expense should be accounted for separately. So few hardware merchants, however, are prepared to give figures on buying expense separately from management expense that better results for the present are obtained by combining the two items as was done this year. For each item of expense in the following table the highest, lowest, and common figures are given. All the highest figures were not from one store. Nor were all the lowest figures from one store. In fact, in only a few cases did the same store show either the highest or the lowest figure for more than one item. The common figure is determined by scientific, statistical methods and is what is known as the mode. It is the

figure around which the entire group in each case tends to concentrate, the point of greatest density. It is the figure of most frequent occurrence. Consequently, it is the most typical, the most representative.

In this table all percentages are percentages of net sales. Net sales are gross sales less returns and allowances to customers. The figure for net sales thus represents the actual volume of business done and is the most reliable basis for making comparisons. The figures in the following table are the summary of the reports received from one hundred fifty-five retail hardware stores.

OPERATING EXPENSES IN RETAIL HARDWARE STORES IN 1919

Net Sales = 100 %

	Lowest	Highest	Common
Wages of Salesforce	2.57 %	15.8 %	6.2 %
Other Selling Expense	0.03	4.12	0.7
Total Selling Expense	3.02	15.8	7.0
Delivery Expense	3.22	0.7
Buying, Management, and Office Salaries ..	0.66	9.64	4.0
Office Supplies, Postage, and Other Management Expense	0.08	1.87	0.3
Total Buying and Management Expense ...	1.15	10.6	4.4
Rent	0.38	6.09	1.7
Heat, Light, and Power	0.06	1.35	0.4
Taxes (Except on buildings, income, and profits)	0.04	1.14	0.5
Insurance (Except on buildings)	0.08	1.02	0.4
Repairs of Store Equipment	0.01	1.11	0.1
Depreciation of Store Equipment	0.02	1.6	0.3
Total Interest	0.95	8.95	3.3
Total Fixed Charges and Upkeep Expense .	3.07	12.68	7.0
Miscellaneous Expense	0.01	3.86	0.9
Losses from Bad Debts	6.8	0.5
Total Expense	11.42	36.3	21.0

TOTAL EXPENSE

The lowest figure for total expense for any retail hardware store reporting in 1919 was 11.42 %; the highest was 36.3 %; and the common figure was 21 % of net sales. This represents the cost of doing business. It includes all items of wages; payments for items such as postage, heat, light, taxes, and insurance; and also the salary of the proprietor, rent, whether the store is owned or leased, and interest both on borrowed capital and on the proprietor's net investment.

The stores with net sales less than \$30,000 a year in 1919 showed a common figure for total expense of 23.9 % of net sales; stores with net sales between \$30,000 and \$59,000 showed a common figure for total expense of 22.1 %; and stores with net sales of over \$60,000 showed a common figure for total expense of 18.9 %. In each group there were numerous stores with low figures for total expense and others with high figures. The comparison indicates clearly, however, that the tendency was for total expense to be lower in 1919 in the retail hardware stores with a large volume than in the hardware stores with a small volume of sales.

WAGES OF SALESFORCE

The common figure for wages of salesforce, including a part of the proprietor's salary in proportion to the time spent in selling, was 6.2 % of net sales in 1919. A comparison of the figures for stores furnishing reports for both 1918 and 1919 showed that wages of salesforce tended to be slightly higher in proportion to net sales in 1919.

Figures were worked out for eighty-nine stores to show the average annual sales of merchandise per salesperson. Allowances were made for the time of the proprietor or partners spent in selling, also for extra salespersons, and for the time spent by any other employees in selling. The average annual sales of merchandise per salesperson varied from \$6,800 a year to \$25,000 a year in 1919. The common figure was \$15,000.

In the stores in which the average annual sales of merchandise per salesperson were less than \$14,000 the average figure for salesforce expense was about 8 % of net sales. In the stores in which the average annual sales per salesperson were between \$14,000 and \$18,000 the common figure for salesforce expense was 6.1 %. The common figure for salesforce expense in stores with average annual sales per salesperson greater than \$18,000 was about 4 % of net sales.

Although the number of reports was not great enough to warrant exact comparison, it appeared that salesforce expense generally was about one-half as great in proportion to net sales in the retail hardware stores that had a high volume of sales of merchandise per salesperson as compared with the retail hardware stores with a small volume of annual sales of merchandise per salesperson.

In its investigations in other retail trades the Bureau has found the figure for average annual sales per salesperson especially significant in interpreting the expenses for wages of salesforce. Economy in salesforce expense usually is brought about by the adoption of methods which enable the employees to handle a large volume of sales. In a substantial number of retail hardware stores the expense for wages of salesforce was substantially less than 6.2 %, the common figure in 1919, and with few exceptions these were the stores securing a large volume of sales per salesperson.

DELIVERY EXPENSE

One-fourth of the retail hardware stores from which reports were received for 1919 did not make any deliveries of merchandise. Among the hardware stores that did make deliveries, about one-half used their own equipment and the remainder used coöperative or union delivery systems. These merchants were requested to state the portion of their sales that were delivered. Seventy-nine retailers answered this question. In twenty-three of the stores less than 10 % of the sales were delivered; in eighteen stores from 10 % to 19 % were delivered; in seventeen stores from 20 % to 25 % of the sales were delivered; and in twenty-one stores deliveries amounted to more than 30 % of the sales. For all the hardware stores that made deliveries the common figure for delivery expense, which includes both wages of the delivery employees and also expense of the operation and upkeep of delivery equipment, was 0.7 % of net sales. In the

hardware stores using a coöperative delivery system the common figure for delivery expense was 0.5 %. The stores that used their own equipment delivered a somewhat greater proportion of the merchandise that they sold and for them the common figure for delivery expense was 0.9 % of net sales.

LOSSES FROM BAD DEBTS

The common figure for losses from bad debts in the retail hardware stores reporting to the Bureau in 1919 was 0.5 % of net sales. This is the same figure as was shown in the summary that the Bureau prepared for 1918. It is worth noting that the losses from bad debts in retail hardware stores were slightly greater in percentage of net sales in 1919 than in the retail grocery stores from which the Bureau received reports for the same year. During the last four years the percentage of losses from bad debts has tended slightly to decline in the retail grocery trade and the common figure in that trade for 1919 was 0.3 % of net sales.

GROSS AND NET PROFIT

The following table shows the highest, lowest, and common figures for gross profit and net profit in one hundred fifty-five retail hardware stores in 1919:

	Highest	Lowest	Common
Gross Profit	41.08 %	10.28 %	27.1 %
Net Profit (or Loss) Profit	17.35	Loss 4.88	Profit 5.8

While the gross profit showed a range from 10.28 % to 41.08 % of net sales in 1919, in the majority of the hardware stores the figures for gross profit were between 23 % and 32 % of net sales, centering around 27.1 %.

Ten stores showed a net loss in 1919 and in more than one-fourth of the stores the net profit was less than 2 % of net sales. One-tenth of the stores, on the other hand, showed a net profit of more than 12 % of net sales. The common figure for net profit was 5.8 % of net sales in 1919.

STOCK-TURN

The highest rate of stock-turn shown on the retail hardware reports for 1919 was 6.8 times a year, the lowest 1.1 times. The common figure for stock-turn was 2.1 times a year in 1919. This figure for stock-turn is obtained by dividing the *cost* of merchandise sold during the year by the average of the inventories at the beginning and end of the year. As was explained in a previous bulletin, a better figure for the rate of stock-turn would be obtained by use of monthly inventories, but such figures are not now available.

While the common figure for the rate of stock-turn was 2.1 times a year in 1919, there was still a substantial number of hardware merchants turning their stock less than twice a year. Enough merchants were turning their stock more than 2.5 times, however, to indicate that a faster rate of stock-turn generally is attainable.

The importance of a fast rate of stock-turn is indicated by the comparisons of total interest and total expense in stores with a low rate of stock-turn and in stores with a high stock-turn. In the stores in which the rate of stock-turn was less than 1.8 times in 1919 the common figure for total interest was 3.9 % of net sales, and the common figure for total expense was 25 % of net sales. In the stores with a stock-turn greater than 2.2 times in 1919 the common figure for total interest was 2.6 % of net sales, and the common figure for total expense was 19.3 % of net sales. Numerous stores that showed an abnormally high figure for total expense had as low rate of stock-turn. The slow rate of stock-turn was not the only cause for high expenses, of course, but it is a significant index to the management of many stores.

In forty-five stores for which stock-turn figures were available for both 1918 and 1919 a marked increase in the rate of stock-turn was shown. In these stores the common figure for stock-turn in 1918 was 1.6 times. In 1919 it was 2.0

times a year. The tendency for a more rapid rate of stock-turn in these stores in 1919 was strikingly marked.

The rate of stock-turn tended to be slightly higher in the stores with a large volume of sales than in the stores with a small volume of sales in 1919. The difference, however, was small, and among the stores with a volume of sales less than \$30,000 a year there were several that were turning their stock more than 2.5 times a year. Among the groups of large stores there were some with a rapid rate of stock-turn and also some with a slow rate of stock-turn. Judging from these figures there is no reason why a small store can not turn its stock as rapidly as a large store, provided it follows sound buying methods.

BUYING

On buying methods an inquiry was made this year regarding the percentages of purchases bought directly from manufacturers, from wholesalers, and from coöperative buying associations. Answers to this question were received from one hundred thirteen retail hardware merchants. Nine of these merchants reported that they did not make any purchases directly from manufacturers; seven bought less than 10 % of their purchases from manufacturers; twenty-six bought 10 % to 15 %; thirty-four bought 20 % to 25 %; eight bought 30 % to 35 %; four bought 40 %; eleven bought 50 %; and fourteen bought 60 % of their purchases from manufacturers.

Nine merchants stated that they purchased only from wholesalers. Twenty-two merchants purchased 90 % to 95 % of their goods from wholesalers; sixteen bought 80 % to 85 %; thirty bought 70 % to 75 %; seventeen bought 50 % to 60 %; and nineteen bought less than 50 % from wholesalers.

Two of these merchants purchased from only two wholesalers; twenty purchased from seven or more wholesalers.

A large majority of the merchants purchased regularly from three to six hardware wholesalers. The average number of wholesalers from whom each hardware retailer bought was four.

Twenty-one merchants stated that they made some of their purchases through coöperative buying associations. Nine of these merchants stated that they purchased 5 % of their goods in this way; one purchased 8 %; five 10 %; three 25 %; two 30 %; and one 35 %. The merchandise bought through coöperative buying associations was of wide variety. The following are some of the answers to this question: miscellaneous hardware, mail order competition goods, general hardware, paints and roofings, house furnishings, rope, batteries, tools, flashlights.

If the practice of these merchants is typical, it indicates that only a small proportion of their purchases was made through coöperative buying associations and there seemed to be little standardization in the practice as to the kinds of goods bought in this way.

CASH DISCOUNTS

The common figure for cash discounts taken by one hundred eight retail hardware stores in 1919 was 1.9 % of purchases of merchandise at billed cost. Numerous stores did not report any figure for cash discounts taken. Among the stores that took at least part of their discounts, these discounts ranged from 0.1 % to 5.1 % of purchases. Approximately one-half the stores showed cash discounts between 1.5 % and 2 % of their purchases, with a marked tendency to concentrate near the upper limit of this group.

FINANCIAL FIGURES

The average inventory of merchandise on hand January 1, 1919, in the hardware stores from which the Bureau received reports was \$20,600. The average inventory of merchandise at the end of the year was \$22,400. This was an increase of 8.7 %. Inasmuch as the rate of stock-turn was greater in numerous stores in 1919 than in 1918, it is probable that this increase in the value of merchandise on hand was somewhat less than the increase in prices. If this assumption is correct, these figures indicate that a smaller number of units of merchandise were being carried in stock by these hardware stores at the end of the year 1919 than at the beginning of the year.

From the financial statements that were included in the reports received for the year 1919 comparisons have been worked out for several items. The first of these is the ratio of current assets to current liabilities. In the store with the lowest ratio, the current assets were just equal to the current liabilities. At the other extreme were a few stores with practically no current liabilities but with substantial current assets. In fourteen stores the current assets were from 1 to 1.9 times the current liabilities; in eighteen stores from 2 to 2.9; in eighteen stores from 3 to 3.9; in seven stores from 4 to 4.9; in nine stores from 5 to 5.9; in ten stores from 6 to 6.9; and in fifty-two stores the current assets were over 7 times the current liabilities, which indicated what generally is considered to be an unusually strong financial standing.

Comparisons also were worked out to show the relation of the accounts and notes receivable at the end of the year to the average monthly sales. These figures gave some indication of the amount of credit being granted in proportion to the volume of business. One hundred forty stores reported accounts and notes receivable. In nine of these stores the accounts and notes receivable were less than one-half the average monthly sales. In twenty-six stores the accounts

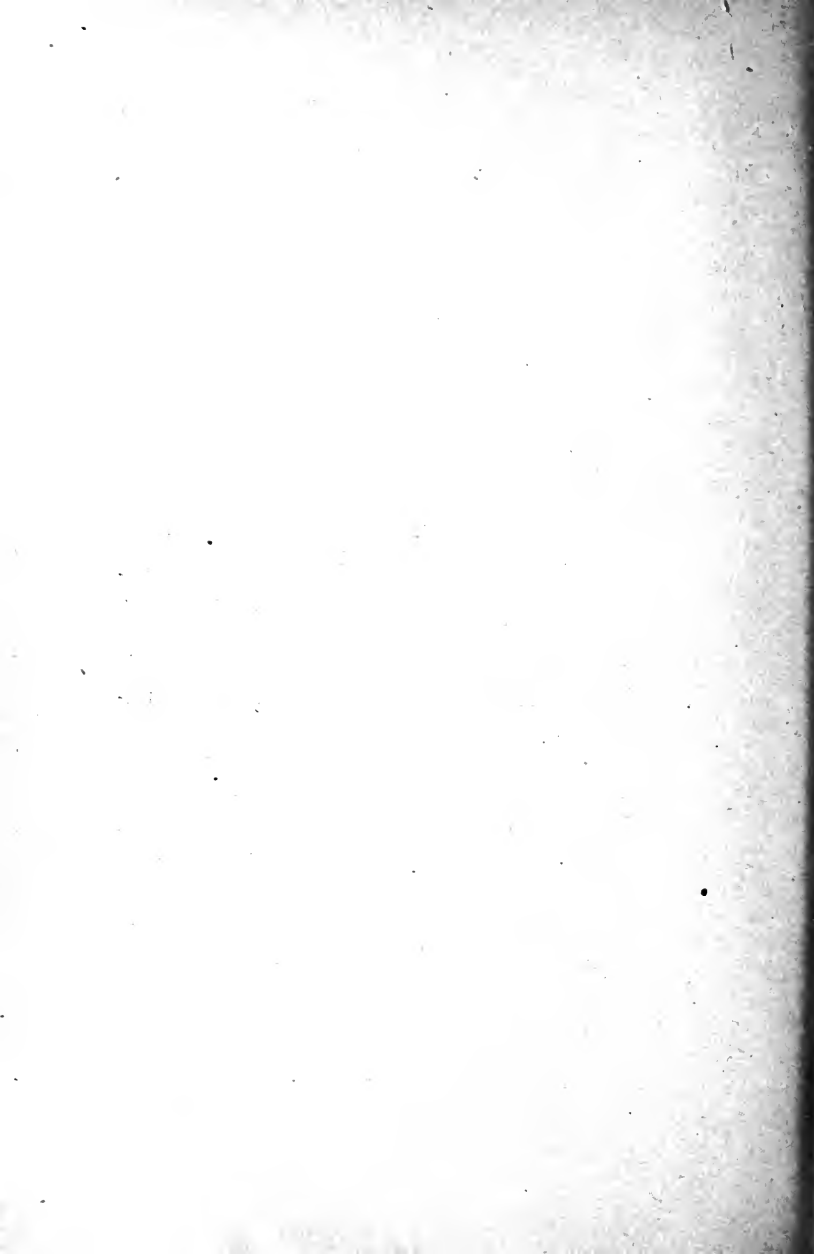
and notes receivable were more than one-half the average monthly sales but less than the average sales for one month. In thirty-six stores the accounts and notes receivable were from 1 to 1.49 times the average monthly sales; in thirty stores the ratio of accounts and notes receivable to average monthly sales was between 1.5 and 1.99; thirty-nine stores showed accounts and notes receivable more than twice the average monthly sales.

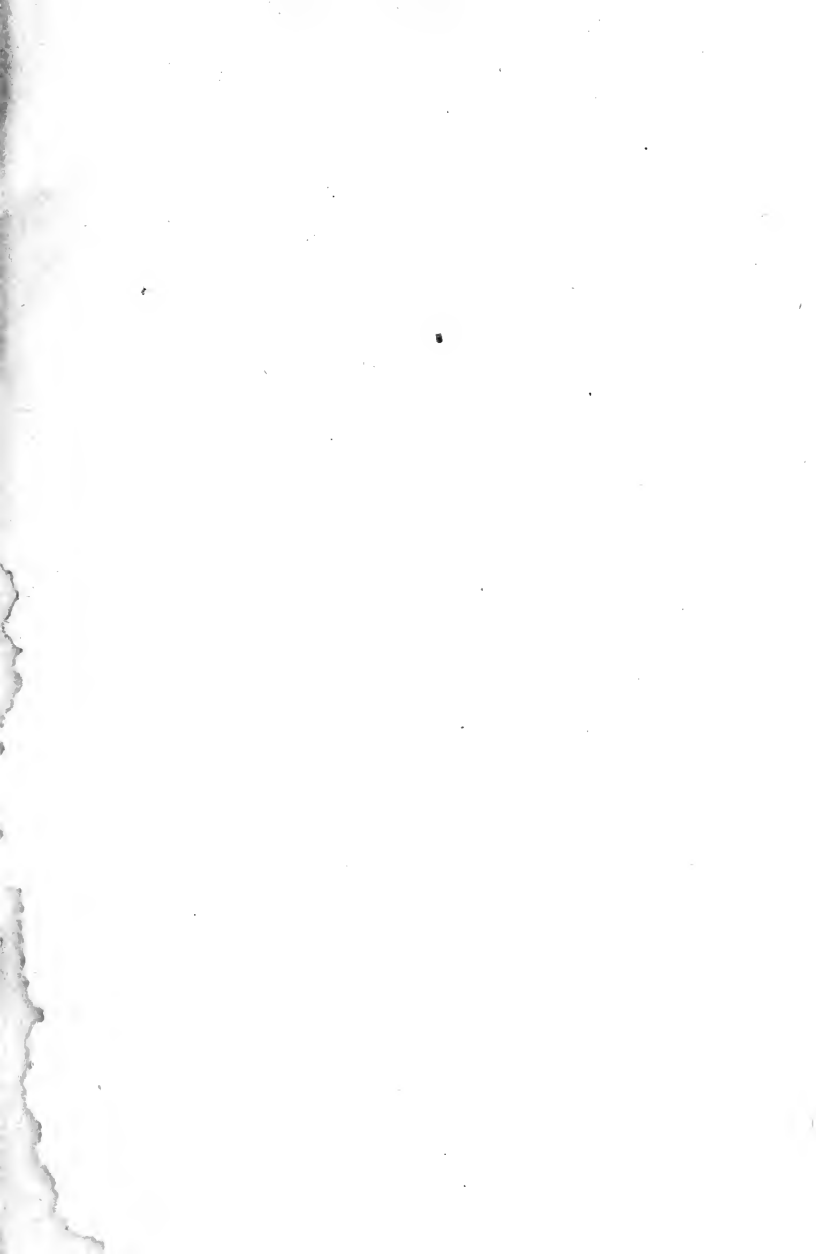
The ratio of accounts and notes receivable to average monthly sales in the retail hardware trade was sharply in contrast to the ratio of the same items shown by retail grocery stores for 1919. As was stated in Bulletin No. 18, *Operating Expenses in Retail Grocery Stores in 1919* (page 15), the accounts and notes receivable were less than the average volume of sales per month in 75 % of the retail grocery stores from which reports were received for 1919. In the retail hardware trade only 25 % of the stores showed accounts and notes receivable less than the average sales for one month. In only 2 % of the retail grocery stores were the accounts and notes receivable more than twice the average monthly sales. In 28 % of the hardware stores, however, the accounts and notes receivable were over twice the average monthly sales.

In the hardware stores in which the accounts and notes receivable were less than the average monthly sales the common figure for total interest was 2.5 %. In the stores with accounts and notes receivable greater than the average monthly sales the common figure for total interest was 3.5 % of net sales. This indicates clearly a portion of the expense burden that is involved in granting long credit. In the stores in which the accounts and notes receivable were less than the average monthly sales the losses from bad debts were less than in the stores in which the ratio of accounts and notes receivable to average monthly sales was greater. Apparently one reason for the higher expense for losses from bad debts in the retail hardware trade than in the retail

grocery trade was the more extended credit granted by the hardware retailers.

The ratio of accounts and notes payable to average monthly purchases also was worked out. The full significance of these figures can not be determined until the comparisons have been continued for more than one year. It seems, however, that the ratio of accounts and notes payable to average monthly purchases will serve as an index to the amount of credit that a merchant is receiving. Accounts and notes payable were reported by one hundred twenty-three stores. In forty-six of these stores the accounts and notes payable were less than the average monthly purchases. In twenty-seven stores the ratio was between 1 and 1.9, and in fifty stores the accounts and notes payable at the end of the year were more than twice the average monthly purchases, in many instances amounting to 3, 4, or even 5 times the average monthly purchases. Just as numerous hardware retailers apparently were granting extensive credit to their customers, similarly there appeared to be frequent instances of unusually extended credit being granted to retailers by hardware wholesalers and manufacturers during 1919.





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